

ABSTRACT

A lithium ion secondary battery includes a positive electrode capable of absorbing and desorbing lithium ion, a negative electrode capable of absorbing and desorbing lithium ion, a porous film interposed between the positive electrode and the negative electrode, and a non-aqueous electrolyte, the porous film being adhered to a surface of at least the negative electrode. The porous film includes an inorganic filler and a first binder: The content of the first binder in the porous film is 1.5 to 8 parts by weight per 100 parts by weight of the filler: The first binder includes a first rubber including an acrylonitrile unit: The first rubber is water-insoluble and has a decomposition temperature of 250 °C or higher. The negative electrode includes a negative electrode active material capable of absorbing and desorbing lithium ion and a second binder, and the second binder includes a second rubber particle and a water-soluble polymer.